

# Work Order ID 43939

July 1, 2009 3:57:06 PM

Page 1

Item ID: D2410

Accept

Revision ID: A1

Item Name: 206 Aspirator Assembly

Start Date: 07/15/2009 Start Qty: 2.00

Required Date: 08/03/2009 Req'd Qty: 2.00

Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan: MF

Date: 09/09/24 Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start

Stop

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D2410

Rev A1

100

0.00



Small Fab

Small Fab

Memo

0.00

Small Fab

1-Assemble D2413, D2414 and D2404 as per dwg D2410

SD 09/07/21 2

110

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

=> SD 09/07/21

(42) 4

120

0.00



Small Fab

Small Fab

Memo

0.00

Small Fab


1-Install the rest of assembly parts as per dwg D2404



EM-Lou/11/04 (2X)




# Work Order ID 43939

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Page 2

Item ID: D2410	Accept		Setup	Start	
Revision ID: A1				Stop	
Item Name: 206 Aspirator Assembly					
Start Date: 07/15/2009	Start Qty: 2.00		Cust Item ID:		
Required Date: 08/03/2009	Req'd Qty: 2.00		Customer:		
Reference:					

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130  QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00  0.00	2) Sorulob3			(02)	4		
140  Powdercoat Powder Coating	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum  Memo ****Place masking tape on red anodize tube of flare section and access to interior of both ends.*** TEMPERATURE: 1:00 FINISH TIME: 3:30 OVEN 320°	0.00  0.00	JH 08/11/09			(K2)	8		
150  QC Quality Control	QC3- Inspect Part Finish  Memo	0.00  0.00	2) Sorulob4			(02)	4		

# Work Order ID 43939

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Item ID:	D2410	Accept		Setup	Start	
Revision ID:	A1				Stop	
Item Name:	206 Aspirator Assembly					
Start Date:	07/15/2009	Start Qty: 2.00		Cust Item ID:		
Required Date:	08/03/2009	Req'd Qty: 2.00		Customer:		
Reference:						

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 	Identify as per dwg & Stock Location <i>CK</i>	0.00							
Packaging	Memo	0.00				<i>2</i>	<i>8</i>		
Packaging									
170 	QC21- Final Inspection - Work Order Release	0.00							
QC	Memo	0.00							
Quality Control									

*MF*  
*09-11-04*

Status	Item ID	Rev	Name	Start Date	Quantity	Pe	JO	Op	Date	Sec	rap	ap	Qua	mm	er	nd	NEC	IC	IX	II	Sort	ime	Offset	an	Ty	1	Per	O	ch	to	wore	Cie	Last	Mdd	Dat
<input checked="" type="checkbox"/>	D2403	✓	A	Heater Outer Sheet	01/01/08	1.0000	Ea		100	0...	0.00...						0	0	MRP													06/0...	06/...		
<input checked="" type="checkbox"/>	D2404	✓	A	Heater Perforate...	01/01/08	1.0000	Ea		100	0...	0.00...						0	0	MRP													06/0...	06/...		
<input checked="" type="checkbox"/>	D2411	✓	B	Valve Support	01/01/08	1.0000	Ea		100	0...	0.00...						0	0	MRP													06/0...	06/...		
<input checked="" type="checkbox"/>	D2412	✓	A	Insulation Filter	01/01/08	0.7673	Ea		100	0...	0.00...						0	0	MRP													06/0...	06/...		
<input checked="" type="checkbox"/>	D2413	✓	A	Instake Weldment...	01/01/08	1.0000	Ea		100	0...	0.00...						0	0	MRP													06/0...	06/...		
<input checked="" type="checkbox"/>	D2414	✓	A	Outlet Weldment...	01/01/08	1.0000	Ea		100	0...	0.00...						0	0	MRP													06/0...	06/...		
<input checked="" type="checkbox"/>	D2416	✓	B	Mounting Angle	01/01/08	1.0000	Ea		100	0...	0.00...						0	0	MRP													06/0...	06/...		
<input checked="" type="checkbox"/>	D2417	✓	B	Mounting Angle	01/01/08	1.0000	Ea		100	0...	0.00...						0	0	MRP													06/0...	06/...		
<input checked="" type="checkbox"/>	MS20470AD4-5	✓		Rivet, Universal H...	01/01/08	8.0000	Ea		100	0...	0.00...						0	0	MRP													06/0...	06/...		
<input checked="" type="checkbox"/>	MS20600-AD4W2	✓		Rivet	01/01/08	8.0000	Ea		100	0...	0.00...						0	0	MRP													06/0...	06/...		
<input checked="" type="checkbox"/>	MS20600-AD4W3	✓		Cherry Rivets	01/01/08	2.0000	Ea		100	0...	0.00...						0	0	MRP													06/0...	06/...		
<input checked="" type="checkbox"/>	MS20600-AD4W4	✓		Rivets	01/01/08	12.0000	Ea		100	0...	0.00...						0	0	MRP													06/0...	06/...		

Date: Monday, 08/12/2008 1:52:22 PM  
 User: Julie Dawson

## Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: ASPIRATOR ASSEMBLY
Job Number	: 43939		
Estimate Number	: 10480		
P.O. Number	:	Part Number	: D2410
This Issue	: 08/12/2008 S.O. No. :	Drawing Number	: D2410
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: / / Type : SMALL /MED FAB	Drawing Revision	: A1
Previous Run	: 35329	Material	:
Written By	:	Due Date	: 29/12/2008 Qty: 2 Um: Each
Checked & Approved By	: <u>JUD 08.12.08</u>		
Comment	: Est:C 03.04.14 Reformat; Incorporated D2292; D2375-3-08-106; D2403 - D2417 KJ/RF		

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :								
1.0	<u>D2375308</u>	Insulation 48'of 3"ID*1/								
Comment: Qty.: 0.8333 f(s)/Unit Total : 1.6666 f(s) Insulation 48'of 3"ID*1/ Pick: <table border="0"> <tr> <td>Qty</td> <td>Part Number</td> <td>Description</td> <td>Batch</td> </tr> <tr> <td>10.6"</td> <td>D2375-3-08</td> <td>Insulation</td> <td><u>M1810</u></td> </tr> </table>			Qty	Part Number	Description	Batch	10.6"	D2375-3-08	Insulation	<u>M1810</u>
Qty	Part Number	Description	Batch							
10.6"	D2375-3-08	Insulation	<u>M1810</u>							
2.0	D2403	Heater Outer Sheet								
Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s) Outer Skin Pick: <table border="0"> <tr> <td>Qty</td> <td>Part Number</td> <td>Description</td> <td>Batch</td> </tr> <tr> <td>1</td> <td>D2403</td> <td>Outer Skin</td> <td><u>35815</u></td> </tr> </table>			Qty	Part Number	Description	Batch	1	D2403	Outer Skin	<u>35815</u>
Qty	Part Number	Description	Batch							
1	D2403	Outer Skin	<u>35815</u>							
3.0	D2404	Heater Perforated Sheet								
Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s) Perforate Sheet,0.125 Ho Pick: <table border="0"> <tr> <td>Qty</td> <td>Part Number</td> <td>Description</td> <td>Batch</td> </tr> <tr> <td>1</td> <td>D2404</td> <td>Perforated Sheet</td> <td><u>43986</u></td> </tr> </table>			Qty	Part Number	Description	Batch	1	D2404	Perforated Sheet	<u>43986</u>
Qty	Part Number	Description	Batch							
1	D2404	Perforated Sheet	<u>43986</u>							
4.0	D2411	Valve Support								
Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s) Valve support, 5052-H34 Pick: <table border="0"> <tr> <td>Qty</td> <td>Part Number</td> <td>Description</td> <td>Batch</td> </tr> <tr> <td>1</td> <td>D2411</td> <td>Valve Mtg Angle</td> <td><u>25066</u></td> </tr> </table>			Qty	Part Number	Description	Batch	1	D2411	Valve Mtg Angle	<u>25066</u>
Qty	Part Number	Description	Batch							
1	D2411	Valve Mtg Angle	<u>25066</u>							

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

## Process Sheet

DAR001 Dart Helicopters Services

Drawing Name: ASPIRATOR ASSEMBLY

43939

Part Number: D2410

number:



Seq. #:	Machine Or Operation:	Description :
5.0	D2412	Insulation Filter
<b>Comment:</b> Qty.: 0.7673 sf(s)/Unit Total : 1.5346 sf(s) Insulation filter Pick: Qty Part Number Description Batch 110.5si D2412 Insulation Filter <u>B17099</u> <u>8809/06/10</u> (x2)		
6.0	D2413	Intake Weldment Assembly
<b>Comment:</b> Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s) Intake Weldment Pick: Qty Part Number Description Batch 1 D2413 Intake Assembly <u>B29312</u> <u>8809/06/10</u> (x2)		
7.0	D2414	Outlet Weldment Assembly
<b>Comment:</b> Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s) Outlet Weldment Pick: Qty Part Number Description Batch 1 D2414 Outlet Assembly <u>B35336x1 B46836x1</u> <u>8809/06/10</u> (x2)		
8.0	D2416	Mounting Angle
<b>Comment:</b> Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s) Mounting angle, 1x.625x. Pick: Qty Part Number Description Batch 1 D2416 Mounting Angle <u>B35968</u> <u>8809/06/10</u> (x2)		
9.0	D2417	Mounting Angle
<b>Comment:</b> Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s) Mounting angle, 1x.625x. Pick: Qty Part Number Description Batch 1 D2417 Mounting Angle <u>B35969</u> <u>8809/06/10</u> (x2)		

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Date: Monday, 08/12/2008 1:52:22 PM  
User: Julie,Dawson

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: ASPIRATOR ASSEMBLY

Job Number: 43939

Part Number: D2410

Job Number:



Seq. #: Machine Or Operation: Description :

10.0 MS20470AD45 Rivet, Universal Head



Comment: Qty.: 8.0000 Each(s)/Unit Total : 16.0000 Each(s)

Rivet, Universal Head

Pick:

Qty	Part Number	Description	Batch
8	MS20470AD4-5	Rivet	M109031

88 09/06/10 (12)

11.0 MS20600AD4W2 Rivet



Comment: Qty.: 8.0000 Each(s)/Unit Total : 16.0000 Each(s)

Rivet

Pick:

Qty	Part Number	Description	Batch
8	MS20600AD4W2 (or CR9163-4-2)	Rivet	M109059

PTD  
88 09/06/10 (12)

12.0 MS20600AD4W3 Cherry Rivets



Comment: Qty.: 2.0000 Each(s)/Unit Total : 4.0000 Each(s)

Cherry Rivets

Pick:

Qty	Part Number	Description	Batch
2	MS20600AD4W3 (or CR9163-4-3)	Rivet	M106375

88 09/06/10 (12)

13.0 MS20600AD4W4 Rivets



Comment: Qty.: 12.0000 Each(s)/Unit Total : 24.0000 Each(s)

Rivets

Pick:

Qty	Part Number	Description	Batch
12	MS20600AD4W4 (or CR9163-4-4)	Rivet	M111477

88 09/06/10 (12)





14.0 ✓ SMALL FAB 1 SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

1-Assemble D2413, D2414 and D2404 as per dwg D2410

SB 09/07/21 (2)

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
09/06/18	11	Add Q4 10 rivets for total 08 18  Permanent Change	SB	09/06/18	18	 09/06/18	 09/06/18	
09/06/18	11	CR 3213-4-4 M 104291 were use to replace MS 20600A04W4  "Permanent Change"				 09/06/18	 09/06/18	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 08/12/2008 1:52:22 PM  
User: Julie, Dawson

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: ASPIRATOR ASSEMBLY

Job Number: 43939

Part Number: D2410

Job Number:



Seq. #: Machine Or Operation:

Description:

15.0 ✓ QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

S 09/09/21 (X2)

16.0 ✓ SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

1-Install the rest of assembly parts as per dwg D2404

M-h 09/11/03 (2X)

17.0 ✓ QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

S 09/11/03 (X2)

18.0 ✓ POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

\*\*\*\*Place masking tape on red anodize tube of flare section and access to interior of both ends.\*\*\*\*

START TIME:

7:30AM

OVEN TEMPERATURE:

320°F

FINISH TIME:

8:00AM

all 09-11-04 (X2)

19.0 ✓ QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT

S 09/11/04 (X2)

20.0 ✓ PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: G A

SP 09/11/04 (X2)

21.0 QC21

FINAL INSPECTION/W/O RELEASE


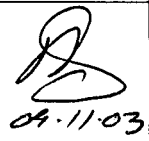


Comment: FINAL INSPECTION/W/O RELEASE

09/11/04 (X2)

Job Completion



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
09/11/03	10	change rivet MS 20470 AD 4-5 for MS 20470 AD 4-4 u <u>112314</u> Permanent change	M.H.	09/11/03	16x	 09-11-03	 09-11-03

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



PREPARED B. Williams		DART AERO ACCESSORIES INC VICTORIA INTERNATIONAL AIRPORT, CANADA	
CHECKED BW	APPROVED BW	D2410	REV. A SHEET 1 OF 2
DATE Apr. 6, 1995		TITLE 206 ASPIRATOR ASSEMBLY	SCALE
A	95.04.06	NEW ISSUE	
A1	03.04.29	ADDED FLARE	

RELEASED  
9669/10 BW

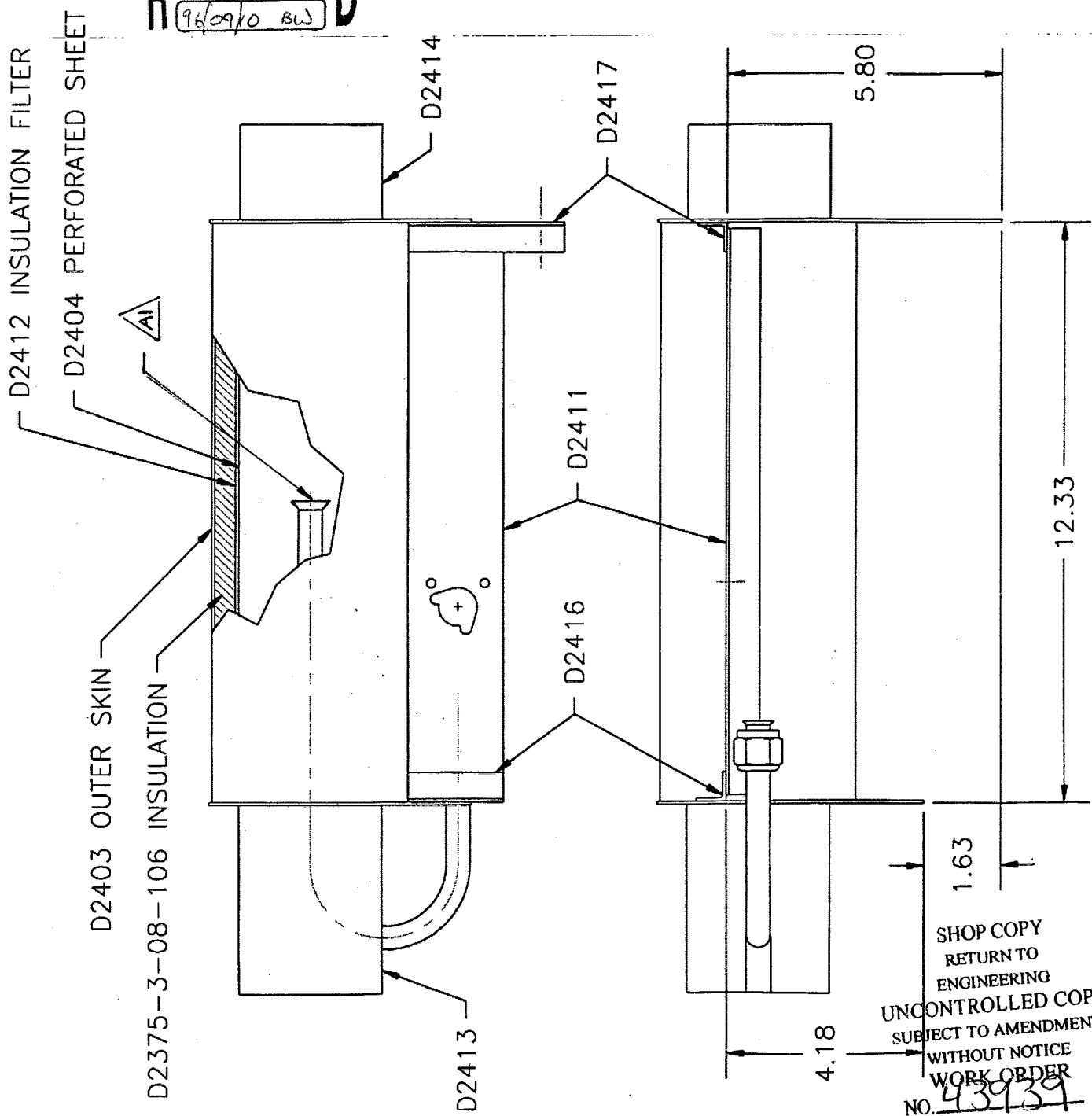
QTY	Part No.	Description
X	D2410	B206 ASPIRATOR ASSEMBLY
1	D2375-3-08-106	INSULATION
1	D2403	OUTER SKIN
1	D2404	PERFORATED SHEET
1	D2411	VALVE MOUNTING ANGLE
1	D2412	INSULATION FILTER
1	D2413	INTAKE ASSEMBLY
1	D2414	OUTLET ASSEMBLY
1	D2416	MOUNTING ANGLE
1	D2417	MOUNTING ANGLE
8	MS20600AD4W2	RIVET (CR 9163-4-2)
2	MS20600AD4W3	RIVET (CR 9163-4-3)
12	MS20600AD4W4	RIVET (CR 9163-4-4)
8	MS20470AD45	Rivets

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 43931



PREPARED B. Williams		DART AERO ACCESSORIES INC VICTORIA INTERNATIONAL AIRPORT, CANADA	
CHECKED BW	APPROVED BW	D2410	REV. A SHEET 2 OF 2
DATE Apr. 6, 1995		TITLE 206 ASPIRATOR ASSEMBLY	

RELEASED  
960910 BW



Status	Item ID	Rev	Name	Start Date	Quantity	Pe	UOM	Scrap %	Route Seq	IC	Sort	Date Last Mod	Add Date	Comments
<input checked="" type="checkbox"/>	MS20600-AD4W2		Rivet	01/01/2008	8.0000		Each	0 %	120		0	04/11/2009 3:4...	05/06/2009	
<input checked="" type="checkbox"/>	D2403	A	Heater Outer Sheet	01/01/2008	1.0000		Each	0 %	120		0	04/11/2009 3:4...	05/06/2009	
<input checked="" type="checkbox"/>	D2414	A	Outlet Weldment Assembly	01/01/2008	1.0000		Each	0 %	100		0	05/06/2009 2:3...	05/06/2009	
<input checked="" type="checkbox"/>	MS20470AD4-5		Rivet, Universal Head	01/01/2008	8.0000		Each	0 %	120		0	04/11/2009 3:4...	05/06/2009	
<input checked="" type="checkbox"/>	D2411	B	Valve Support	01/01/2008	1.0000		Each	0 %	120		0	04/11/2009 3:4...	05/06/2009	
<input checked="" type="checkbox"/>	MS20600-AD4W4		Rivets	01/01/2008	12.0000		Each	0 %	120		0	04/11/2009 3:4...	05/06/2009	
<input checked="" type="checkbox"/>	D2417	B	Mounting Angle	01/01/2008	1.0000		Each	0 %	120		0	04/11/2009 3:4...	05/06/2009	
<input checked="" type="checkbox"/>	D2413	A	Instake Weldment Assembly	01/01/2008	1.0000		Each	0 %	100		0	05/06/2009 2:3...	05/06/2009	
<input checked="" type="checkbox"/>	0202513400106	A	Insulation	04/11/2009	1.0000		Each	0 %	100		0	04/11/2009 3:4...	04/11/2009	
<input checked="" type="checkbox"/>	D2412	A	Insulation Filter	01/01/2008	0.7673		Each	0 %	120		0	04/11/2009 3:4...	05/06/2009	
<input checked="" type="checkbox"/>	D2416	B	Mounting Angle	01/01/2008	1.0000		Each	0 %	120		0	04/11/2009 3:4...	05/06/2009	
<input checked="" type="checkbox"/>	D2404	A	Heater Perforated Sheet	01/01/2008	1.0000		Each	0 %	100		0	05/06/2009 2:3...	05/06/2009	
<input checked="" type="checkbox"/>	MS20600-AD4W3		Cherry Rivets	01/01/2008	2.0000		Each	0 %	120		0	04/11/2009 3:4...	05/06/2009	